

## NCERT Exercise Solution - part - 1

Question: 1. Ethane, with the molecular formula  $C_2H_6$  has

- (a) 6 covalent bonds.
- (b) 7 covalent bonds.
- (c) 8 covalent bonds.
- (d) 9 covalent bonds.

Answer: (b) 7 covalent bonds.

Question: 2. Butanone is a four-carbon compound with the functional group

- (a) carboxylic acid.
- (b) aldehyde.
- (c) ketone.
- (d) alcohol.

Answer: (c) ketone

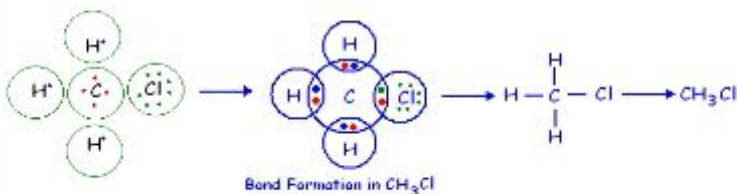
Question: 3. While cooking, if the bottom of the vessel is getting blackened on the outside, it means that

- (a) the food is not cooked completely.
- (b) the fuel is not burning completely.
- (c) the fuel is wet.
- (d) the fuel is burning completely.

Answer: (b) the fuel is not burning completely.

Question: 4. Explain the nature of the covalent bond using the bond formation in  $\text{CH}_3\text{Cl}$ .

Answer:



Carbon has 4 valence electrons. In order to make octet, it shares each of the four electrons with each of the three hydrogen atoms and one chloride atom. Since, bonds are formed because of sharing of electrons, hence these are covalent bonds.

Question: 5. Draw the electron dot structures for

(a) ethanoic acid.

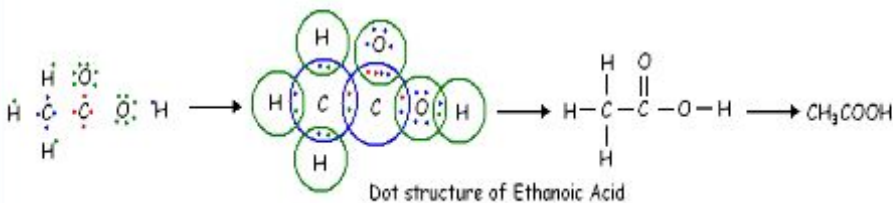
(b)  $\text{H}_2\text{S}$ .

(c) propanone.

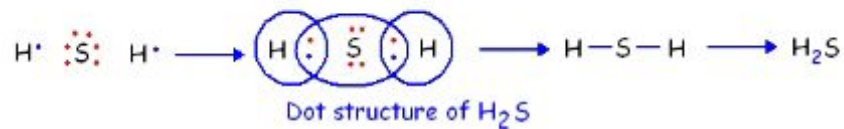
(d)  $\text{F}_2$ .

Answer:

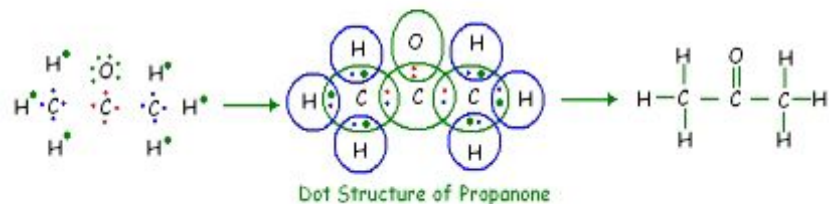
(a) Ethanoic Acid



(b)  $\text{H}_2\text{S}$



(c) Propanone



(d)  $\text{F}_2$

